Applicant

MARK B. METHERELL

Appl. No. Examiner

10/619,819

Examiner Docket No.

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Amendments to the Claims

Please cancel claims 1-17 and substitute the following claims therefor.

1-17. (Cancelled)

18. (New) Apparatus for protecting ships or harbors from attack by vessels comprising

a capture device formed by a net of strong material to be disposed above a water surface, the net having open cells to act as a capture device large enough to capture at least a portion of the bow of a vessel colliding with the net and being flexible enough to envelope a portion of the bow of a vessel so as to apply a downward force to the bow as the vessel continues into the net,

masts attached to the net for maintaining the net in an upright orientation,

a plurality of buoys floatable on a water surface to which the masts are attached for supporting the respective mast, and

anchors connected to sections of the net for providing a restraining force on the net against predetermined movement of the net caused by an attacking vessel.

- 19. (New) Apparatus as in claim 18 further including ballast weights adapted to be secured to the lower ends of the respective masts for facilitating maintaining the masts in an upright vertical position.
 - 20. (New) Apparatus as in claim 18 wherein the anchors are positioned below the net.
- 21. (New) Apparatus as in claim 18 wherein the anchors are disposed at an angle to the plane of the net to produce a different motion to an attacking vessel.
- 22. (New) Apparatus as in claim 21 wherein the anchors are angled substantially perpendicular to the longitudinal axis of the net to thereby be angled in a direction of motion of an attacking vessel to cause the bow to plunge downward and sideways.
- 23. (New) Apparatus as in claim 18 wherein the anchors comprise deployable canopies packed in respective containers, but which canopies can be deployed as a result of force applied to the net by an attacking vessel.
- 24. (New) Apparatus as in claim 23 wherein the canopies are connected via shroud lines and anchor lines to sections of the net, and the canopies normally are contained in respective containers comprising deployment bags.
 - 25. (New) Apparatus as in claim 18 wherein the anchors include canopies whereby a

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bow of a vessel engaging the net causes deployment of the canopy which in turn provides resistance to act as an anchor to impart a downward force to the bow of an attacking vessel.

- 26. (New) Apparatus as in claim 18 wherein the anchors include canopies whereby a bow of a vessel engaging the net causes deployment of the canopy which in turn provides resistance to act as an anchor to impart a lateral force to the bow of an attacking vessel.
- 27. (New) Apparatus as in claim 18 wherein the anchors include canopies whereby a bow of a vessel engaging the net causes deployment of the canopy which in turn provides resistance to act as an anchor to impart a downward and lateral force to the bow of an attacking vessel.
- 28. (New) A method for protecting ships or harbors from attack by vessels comprising the steps of

positioning a capture device formed by a net of strong material above a water surface, the net having open cells to act as a capture device large enough to capture at least a portion of the bow of a vessel colliding with the net and being flexible enough to envelope a portion of the bow of a vessel and to apply a downward force to the bow as the vessel continues into the net,

providing masts attached to the net for maintaining the net in an upright orientation, providing a plurality of buoys floatable on a water surface to which the masts are attached for supporting the respective mast, and

providing anchors connected to sections of the net for providing a restraining force on the net against predetermined movement of the net caused by an attacking vessel.

- 29. (New) A method as in claim 28 further including ballast weights securing the lower ends of the respective masts for facilitating maintaining the masts in an upright vertical position.
 - 30. (New) A method as in claim 28 wherein the anchors are positioned below the net.
- 31. (New) A method as in claim 28 wherein the anchors are disposed off a vertical to the net to produce a different motion to an attacking vessel.
- 32. (New) A method as in claim 31 wherein the anchors are angled substantially perpendicular to the longitudinal axis of the net to thereby be disposed in a direction of motion of an attacking vessel to cause the bow to plunge downward and sideways.
- 33. (New) Apparatus as in claim 18 wherein the top of the net is high enough and the bottom is low enough to capture at least a portion of the bow of a vessel.
- 34. (New) Apparatus as in claim 18 wherein the apparatus is configured to impart a downward force vector to the bow of a vessel and to cause the vessel to capsize if the vessel has

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sufficient forward momentum.

(New) Apparatus as in claim 18 wherein the anchors are connected to the net by 35. cables in a manner to cause the bow of a vessel to plunge downward and sideways and impart a roll force to the vessel.

- (New) Apparatus as in claim 18 wherein the apparatus is configured to capture the 36. bow of a vessel so that as the bow is underwater a majority of the vessel's force will be spent by hydrodynamic drag in the water as the bow dives to aid in stopping the vessel.
- (New) Apparatus as in claim 18 wherein the apparatus is configured to capture the 37. bow of a vessel in a manner to cause the bow to plunge downward.
- (New) Apparatus as in claim 18 wherein the apparatus is configured to capture the 38. bow of a vessel in a manner to cause the bow to plunge downward and sideways.
- (New) Apparatus as in claim 18 wherein the anchors comprise one or more of a 39. large heavy object on or above a sea bed, a conventional sea anchor on the sea bed, a "mud sucker" anchor such as a saucer shaped metal plate, or a parachute type device.
- (New) Apparatus as in claim 39 further including ballast weights adapted to be secured to the lower ends of the respective masts for facilitating maintaining the masts in an upright vertical position.